

### Applications

- Machined prototypes
- Structural components
- Support blocks
- Housings
- Covers

### Advantages

- Excellent impact resistance
- Good machinability
- Excellent aesthetic qualities
- Easy to paint and glue
- Good strength and stiffness
- Low cost

### Performance Characteristics

Flame Resistant

### Grades

- Machine Grade. FDA compliant (natural and black)
- Machine grade. non-FDA (natural and black)
- Flame retardant grade (natural and black)
- Static Dissipative (Black. Natural (beige). Semitransparent)

*NOTE: Several grades of this material are available. For additional information regarding this plastic, contact your Emco Industrial Plastics representative or call (800) 292-9906.*

### MILSpecs

MIL-P-19904

### ABS

#### ABS, Flame Retardant

#### [ Acrylonitrile Butadiene Styrene, Flame Retardant ]

ABS is an economical engineering plastic that is easy to machine and fabricate. ABS is an ideal material for structural applications when impact resistance, strength, and stiffness are required. It is widely used for machining pre-production prototypes since it has excellent dimensional stability and is easy to paint and glue.

### Brand Names

Ensidur® FR

*Emco Industrial Plastics doesn't claim to represent all of the manufacturers or trade name products listed. This list is intended as a guide of typical materials available for purchase from Emco Industrial Plastics, Inc. For additional information, contact an Emco Industrial Plastics representative at (800) 292-9906.*

### Availability

TYPE	SIZE	LENGTH	COLOR
Sheet	1/4" - 4" TH	12" x 48", 24" x 48"; CTS	Natural
Rod	3/16" - 8" DIA	Standard 1/4" - 2" x 8'; 2-1/4" - 6" x 4'; CTS	Natural
Tube	CUSTOM	10'	Custom
Film			Custom

**Give us your cut-to-size dimensions. We will precision-cut these plastics to your exact size. Additional sizes and colors available upon request.**

### Properties

PHYSICAL PROPERTIES	UNITS	ASTM	RESULTS
Density	lb/in <sup>3</sup>	D792	0.0441
MECHANICAL PROPERTIES	UNITS	ASTM	RESULTS
Tensile Strength @yield	psi	D638	5.5
Tensile Modulus	psi	D638	320
Flexural Strength	psi	D790	9.5
Flexural Modulus	psi	D790	330
Compressive Strength	psi	D695	7.65
Compressive Modulus	psi	D695	200
Hardness. Rockwell R		D785	97
THERMAL PROPERTIES	UNITS	ASTM	RESULTS
Heat Deflection Temp at 66 psi	°F	D648	195
Heat Deflection Temp at 264 psi	°F		173
Flammability Rating		UL94	V - 0
ELECTRICAL PROPERTIES	UNITS	ASTM	RESULTS
Dielectric Strength	V/mil	D149	1020

*NOTE: The property values presented above are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Contact us for manufacturers' complete material property datasheets. All values at 73°F (23°C) unless otherwise noted.*